

INITIAL SAFETY DATA SHEET

SECTION I NAME

Product	ALUMINIUM SULFATE
Chemical Synonyms	Alum
Formula	Al ₂ (SO ₄) ₃ · 14H ₂ O (approx.)
Unit(s) Size	100, 500 grams; 1, 2.5 Kg.
C.A.S. No.	10043-01-3

CHEMTREC
800-424-9300
Day 716-226-6177
Night 716-334-4222

NFPA

HAZARD RATING	HAZARD RATING	HAZARD RATING
LEAST 0	MODERATE 2	HIGH EXTREME 3 4
SLIGHT	MODERATE	HIGH EXTREME

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	Aluminum Sulfate
TLV Units	None established

WARNING! HARMFUL IF SWALLOWED

CONTACT MAY CAUSE IRRITATION TO SKIN, EYES AND MUCOUS MEMBRANES.

SECTION III PHYSICAL DATA

Melting Point (°F)	86° C (187° F)
Boiling Point (°F)	Decomposes at 770° C
Vapor Pressure (mm Hg)	Negligible as solid
Vapor Density (Air = 1)	Data not listed
Solubility in Water	50 grams per 100 ml water at 0° C.
Appearance and Odor	White or creamy white granules or powder; no odor.

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable (NA)
Extinguisher Media	Use any media suitable for extinguishing supporting fire.

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a MIOOSH-approved self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat, above 760° C (1400° F), may produce hazardous decomposition products of toxic and corrosive gases.

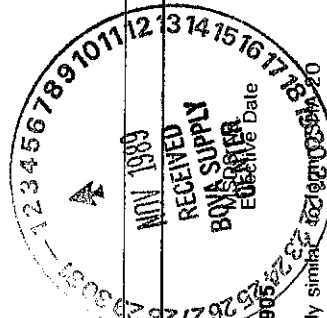
D.O.T. 0911-E



FREY SCIENTIFIC

905 HICKORY LANE MANSFIELD OHIO 44905

Approved by U.S. Department of Labor "essentially similar"



SECTION V HEALTH HAZARD DATA

As Aluminum Soluble salts 2 mg/m³ (ACGIH 1983-84).
TADS: TL50 (mouse) is approximately 10.8 grams/Kg. (Slightly toxic).

Effects of Overexposure

INHALATION: This material hydrolyzes readily to form some sulfuric acid which acts as a tissue irritant, particularly to the lungs. **INGESTION:** May cause irritation of gastrointestinal tract, nausea, vomiting and purging. Human fatal dose recorded at 30 grams. **SKIN:** May cause skin irritation, especially under repeated or prolonged contact or when moisture is present. **EYES:** May irritate or burn eyes. Similarly for the aqueous solutions.

Emergency and First Aid Procedures

EYES: Flush immediately with water for at least 15 minutes, raising the upper and lower eye lids occasionally. If irritation persists, get medical attention. **SKIN:** Flush with water, then wash with mild soap and water. Remove contaminated clothing. If irritation develops, get medical attention. **INHALATION:** Remove to fresh air. If discomfort or illness develops, get medical attention. **INGESTION:** If swallowed, if conscious, give one or two glasses of water to drink. If not already vomiting, induce vomiting and get medical attention.

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SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid
	Stable	Temperatures above 760° C (1400° F). Yield toxic and corrosive gases.

Incompatibility (Materials to avoid)

Alkalies and water- reactive materials such as oleum: causes exothermic reactions.

Hazardous Decomposition Products

At temperatures above 760° C (1400° F), yield sulfur oxide gases (SO₂). These are toxic, oxidizers and corrosive. The trioxide is also a fire hazard. The loss of these gases leaves a caustic residue.

Hazardous Polymerization

May Occur	Will Not Occur	Conditions to Avoid
	x	Not applicable.

SECTION VII SPILL OR LEAK PROCEDURES

Small spills may be dissolved in water and flushed to sewer with copious amounts of water.

Waste Disposal Method

Dissolve in water. Neutralize with alkali, then flush to sewer with plenty of water, if permitted by applicable disposal regulations. Neutralized waste may have to be disposed of by an approved contractor. When using carbonates for neutralization adequate precautions should be taken to minimize hazards and pressure build-up from carbon dioxide gas evolution. Discharge, treatment, or disposal may be subject to federal, state, or local laws.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection: hood or wear a MIOOSH-approved dust mask.

Ventilation	Local Exhaust Mechanical (General)	Special Recommended	None needed	Other	No
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Protective Gloves

Rubber

Eye Protection

Chemical safety glasses

Goggles, lab coat, proper gloves, eye wash station.

SECTION IX SPECIAL PRECAUTIONS

Store in a cool, dry place.

Keep container tightly closed when not in use.

Other Precautions

Read label on container before using.
Do not wear contact lenses when working with this material.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Rev. No. No. 1 Date 11/2/89 Approved *Robert W. Scoville* Chemical Safety Coordinator

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